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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/758,167 | 01/14/2004 | Jin Hong Kim | 2080-3-219 | 4820 |

35884 7590 07/24/2006

LEE, HONG, DEGERMAN, KANG & SCHMADEKA
801 S. FIGUEROA STREET
12TH FLOOR
LOS ANGELES, CA 90017

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| EXAMINER |
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ANGEBRANNDT, MARTIN J

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| ART UNIT | PAPER NUMBER |
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1756

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,167

Applicant(s)

KIM ET AL.

Examiner

Martin J. Angebrannt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/1/05, 1/12/06, 10/17/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/1/05, 1/12/06, 10/</u> | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not describe **inorganic** materials, which meet the recited elastic modulus requirements. The materials described in the specification and recited in claims 6 and 7 are **organic polymers**.

Further, the specification does not teach inorganic materials mixed with these organic polymers. The examiner notes that the examples use polyetherimide alone as the substrate material and compare it with a similar substrate formed of polycarbonate.

3. Claims 6 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The materials recited are not inorganic materials and so fail to further limit the claims.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Machine translation of JP 2001-310358 teaches a ceramic materials applied to stampers and exemplifies zirconia.

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Machine translation of JP 06-318342 describes the formation of an optical recording medium with a polyetherimide substrate (ULTEM made by GE) [0006] which has been stamped/embossed.

Machine translation of JP 2001-056959 teaches optical recording media formed on an embossed/stamped substrate, a reflective/dielectric layer an optical recording layer, a dielectric layer and a protective layer [0004,0006]. The use of polymer substrate including thermoplastics, such as polyarylates, polyesters, polyether sulphone, polyolefins and the like [0007]. The medium should have an elastic modulus of 50 or more GPa [0011]. See example 1, which has a bending modulus of 83 GPa , comprising an embossed substrate, a reflective layer, a dielectric layer, an optiomagnetic recording layer, a dielectric layer and a protective layer [0044-0048].

Note GPa is 10^9 and MPa is 10^6 so this reference would be a 102 rejection if the claims eliminated the inorganic requirement.

EP 1086797 is an English equivalent to KR 2001-00043245 and teaches stampers for optical recording media where DLC is the surface layer, but and intermediate layer is present for adhesion. [0029-0040]. The reference would be the basis for a strong 103 rejection if the inorganic material limitation were removed from the claims.

EP 907165 is an English equivalent of KR 2000-0064778 and teaches basic photoresist mastering processes.

JP 2003-022586 (machine translation attached) is the Japanese equivalent of KR 2002-00084806 and teaches topside read optical recording media formed by embossing. These may be ROM or may have phase change recording layers [0053].

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Feist et al. '484 is an English equivalent to KR 2001-102047 and teaches embossed optical recording media where the substrate may be any of various **plastics** such as polyetherimides, polyetherether ketones, polysulfones, polyphenylene ethers, polyimides, liquid crystal polymers, polymethylmethacrylate (PMMA), bis-malimides, polyamides and the like [0053-0055]. Optical recording layers and other layers are disclosed. [0081]. The reference would be the basis for a strong 103 rejection if the inorganic material limitation were removed from the claims.

Dris et al. '774 is similar to Feist et al. '484, but includes an examples of an optical recording medium. The reference would be the basis for a strong 103 rejection if the inorganic material limitation were removed from the claims.

Vierk et al. '834 is similar to Feist et al. '484, and includes use of PEI (polyether imides) as a substrate material. The reference would be the basis for a strong 103 rejection if the inorganic material limitation were removed from the claims.

Kishima '635 teach a topside optical recording media where the substrate can be polyetherimide [0059]. The reference would be the basis for a strong 103 rejection if the inorganic material limitation were removed from the claims.

Nakayama et al. '025 (4/29-41) and Voets '143 (3/17-22) teach diamond-like films used in embossing optical recording media. The reference would be the basis for a strong 103 rejection if the inorganic material limitation were removed from the claims.

5. The likelihood of obtaining patent coverage seems poor at this point.

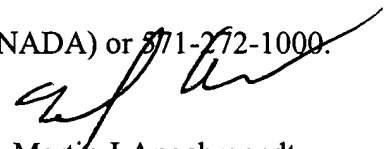
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebrannndt whose telephone number is 571-272-1378.

The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Martin J Angebrannndt
Primary Examiner
Art Unit 1756

7/19/2006